

Hazardous Waste Management Commission Report

July through September 2014

Quarterly Report



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Hazardous Waste Management Commissioners

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"The goal of the Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste."

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Past issues of the Hazardous Waste Management Commission Report are available online at www.dnr.mo.gov/env/hwp/quarerlyreport.htm.



**Missouri Department of Natural Resources
Hazardous Waste Program**

Cover Photo: Gas House Car Wash (UST Removal)

Letter from the Director

Dear Commissioners:

This edition of the Hazardous Waste Management Commission Quarterly Report covers the time period between July 1 and Sept. 30, 2014. July 1 marks the beginning of a new state fiscal year, which means we are operating under a new state budget. For our hazardous waste and tanks related functions, the budget for the current fiscal year has remained relatively stable compared to budgets from previous years, and should allow for the spending authority we need to maintain the operations of the program. You will find more information about this fiscal year's budget in a financial overview included within this report.

While the department's appropriation authority, approved by the legislature this year, is similar to last year's authority, a budget shortfall of general revenue funds was announced by the governor during this quarter. This necessitated the closing of six Division of Environmental Quality satellite offices and the reduction of 11 staff positions that were located at these offices. Fortunately, we were able to move staff from these offices to vacant funded positions so no layoffs were necessary. However, this reduction of positions did impact some hazardous waste inspector positions. As a result, it became necessary to reprioritize the existing workload of several Compliance and Enforcement Section staff within the Hazardous Waste Program to conduct additional inspections in order to meet the commitments outlined in our federal grant work plans and maintain our federal funding.

In regard to funding for the program, there was an important development this quarter, as Senate Bill 642, the department's Omnibus Bill, was signed in to law. This bill contained some minor changes with regards to the Hazardous Waste Management Commission's ability to set fees by rule. The bill went in to effect Aug. 28, 2014. Passage of this legislation allows the program to start stakeholder discussions in hopes of revising certain portions of the fee structure to bring in additional revenues to support the program's activities. It is the goal of the program to get a new fee structure in place by calendar year 2017. To accomplish this, stakeholder efforts will need to be completed by spring 2015, which means there will be a significant effort undertaken by the program in the coming months.

In other business, pesticide collection efforts continued, with three events held this quarter. July's event was held in Washington, August's in Marshfield and September's in Shelbyville. Lessons learned from the 2012/2013 events greatly increased their effectiveness. We continue refining our efforts to maximize these collections.

As you can see from the articles included in this report, the program continues to stay very busy performing inspections, ensuring compliance with the regulations and overseeing the cleanup of sites impacted by releases of hazardous substances and petroleum. We hope you enjoy reading about these efforts.

Sincerely,



David J. Lamb
Director

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Fiscal Year 2015 Budget

The Budget and Planning Section is responsible for financial management of the Hazardous Waste Program. It is this section's responsibility to coordinate the program's budget requests each fiscal year. The state is currently operating in Fiscal Year 2015, which began on July 1, 2014, and runs through June 30, 2015.

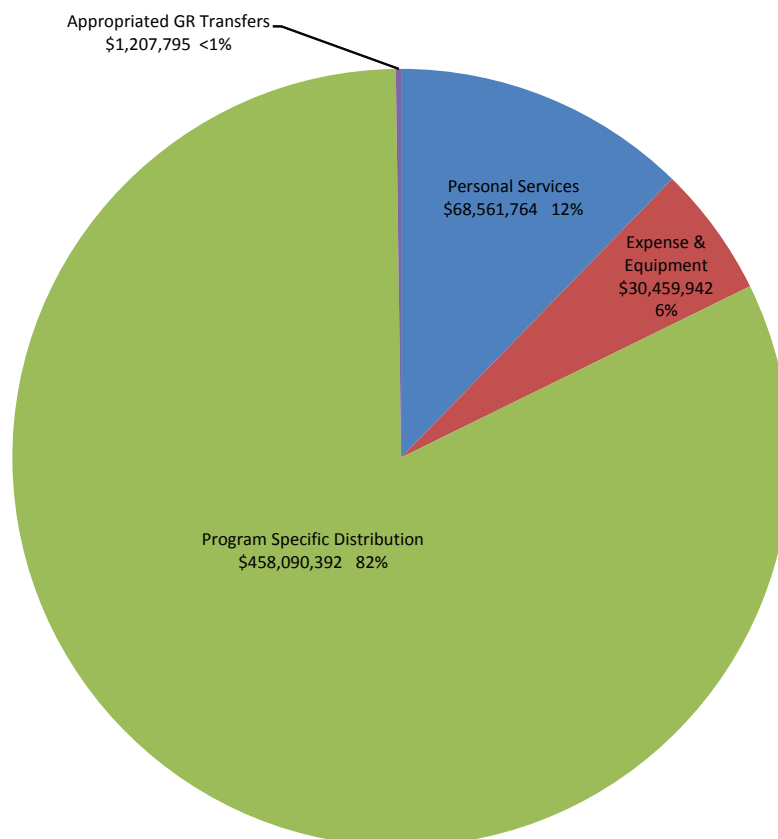
The process to establish the Fiscal Year 2015 budget began in July 2013 when the State Budget Director issued budget preparation instructions. The Budget Program, within the Division of Administrative Support, coordinates the department's overall operating, real estate and capital improvements budgets. The department's operating budget is available online at:

<http://oa.mo.gov/sites/default/files/FY%202015%20DNR%20Budget%20Gov%20Rec.pdf>

Each state agency is required to submit its completed budget request to the State Budget Director annually by Oct. 1. The governor may make changes to these department budget requests and releases the governor's recommended budget in conjunction with the governor's State of the State address in January.

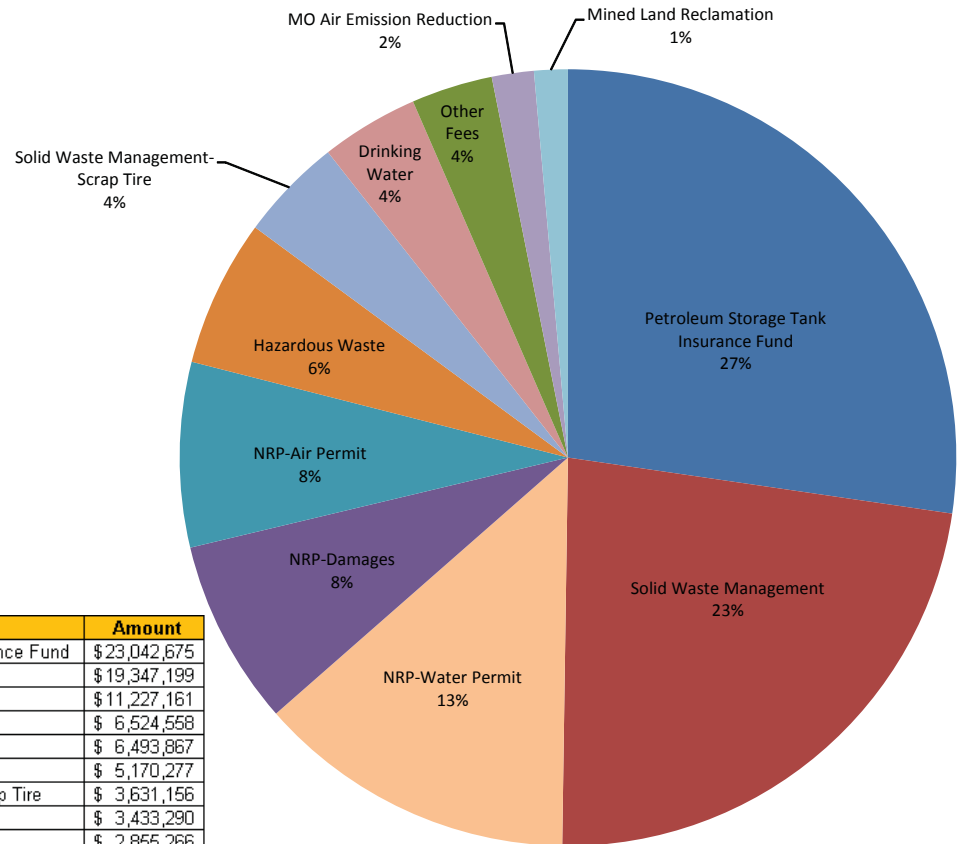
The department's Fiscal Year 2015 operating budget is in House Bill 6, which had to be truly agreed to and finally passed by May 9, 2014. The governor signed the appropriations bill on June 24, 2014. The department's Fiscal Year 2016 budget request was submitted Oct. 1, 2014.

FY 2015 Truly Agreed and Finally Passed DNR Operating Budget (HB6)* \$558,319,893



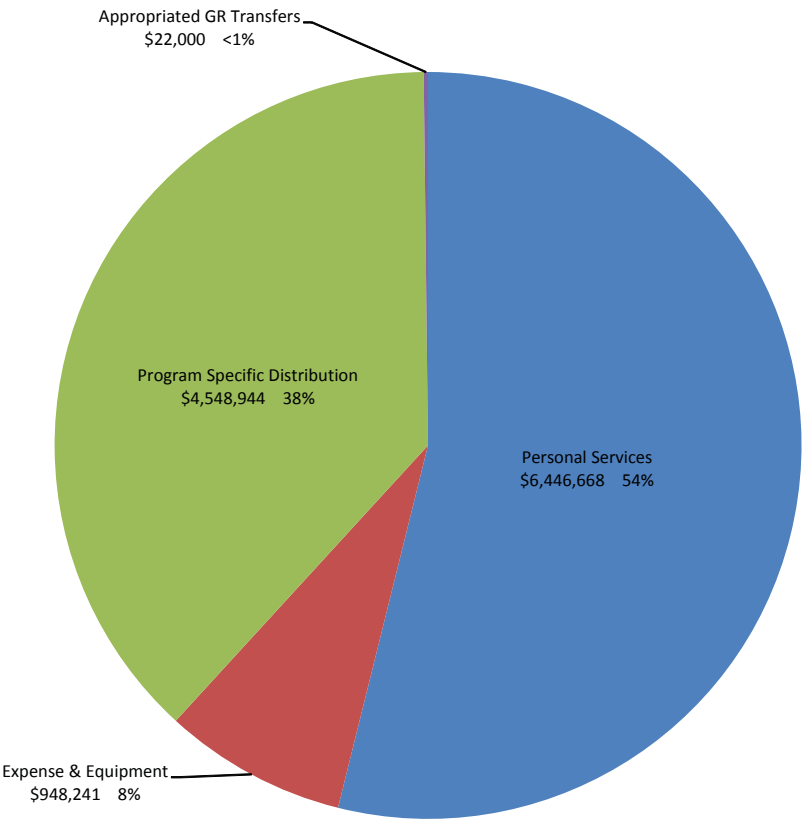
*Includes appropriated General Revenue transfers.

FY 2015 Truly Agreed and Finally Passed DNR Budget - Environmental Fee Fund Appropriations \$84,383,048



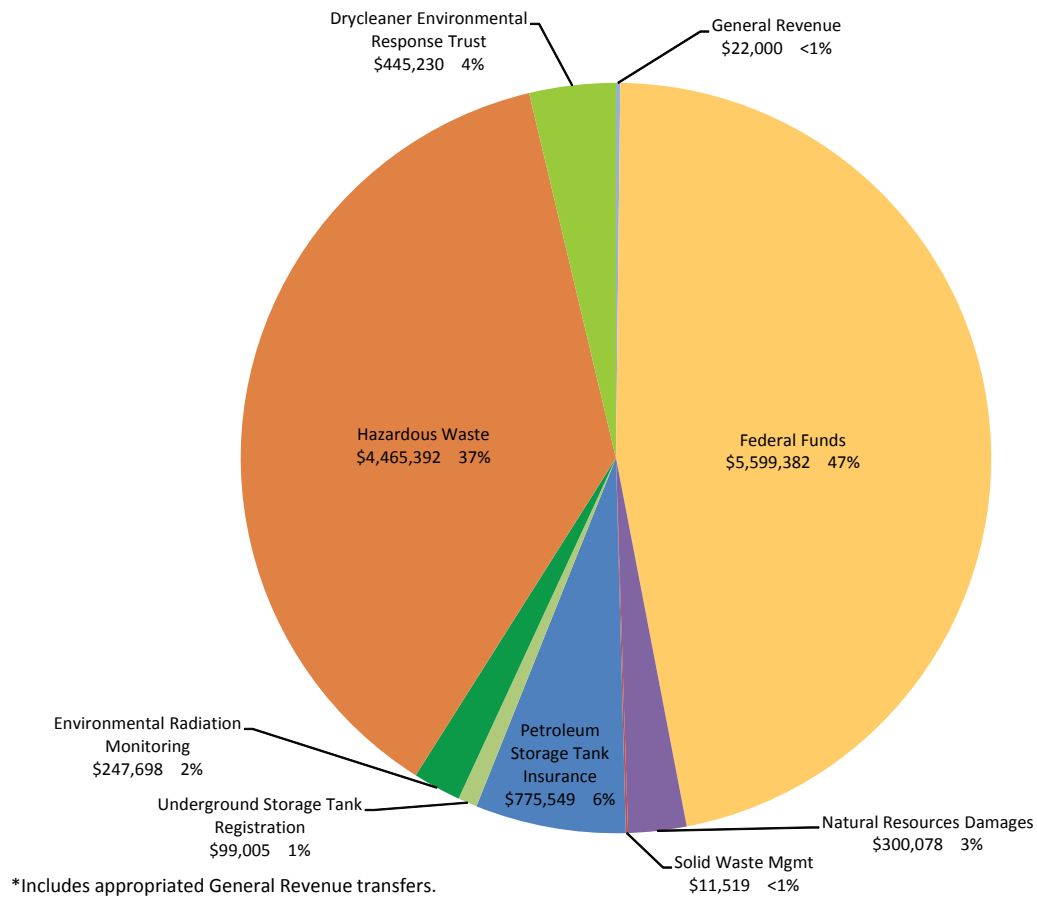
| Fund | Amount |
|---------------------------------------|--------------|
| Petroleum Storage Tank Insurance Fund | \$23,042,675 |
| Solid Waste Management | \$19,347,199 |
| NRP-Water Permit | \$11,227,161 |
| NRP-Damages | \$ 6,524,558 |
| NRP-Air Permit | \$ 6,493,867 |
| Hazardous Waste | \$ 5,170,277 |
| Solid Waste Management-Scrap Tire | \$ 3,631,156 |
| Drinking Water | \$ 3,433,290 |
| Other Fees | \$ 2,855,266 |
| MO Air Emission Reduction | \$ 1,476,575 |
| Mined Land Reclamation | \$ 1,181,024 |

FY 2015 DNR Hazardous Waste Program and Petroleum Related Activities Truly Agreed and Finally Passed Operating Budget (HB6)*
TOTAL: \$11,965,853



*Includes appropriated General Revenue transfers.

FY 2015 DNR Hazardous Waste Program and Petroleum Related Activities Truly Agreed and Finally Passed Operating Budget (HB6)* by Fund TOTAL: \$11,965,853



Brownfields/Voluntary Cleanup Program Certificates of Completion

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. Through this program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site in the form of a “no further action” letter or “Certificate of Completion” (COC) from the state.

The Brownfields/Voluntary Cleanup Program (BVCP) issued six COCs for various sites from July through September 2014. This brings the total number of COCs issued to 741.

Midcon Cables Company – Joplin

The Midcon Cables Company site is located at 2500 Davis Boulevard in Joplin. Midcon Cables Company is an aerospace and defense contractor manufacturing electronic cable assemblies for military and commercial use.

Concentrations of trichloroethylene and tetrachloroethylene (PCE) were detected in groundwater at levels exceeding applicable target levels, but no excessive contamination was detected in soil. Pump and treat technology for groundwater remediation was approved. Pumping began in July of 1997, and continued for several years. After pump and treat activities ceased, groundwater monitoring continued for several more years until the plume was determined to be stable or shrinking. A risk assessment conducted in accordance with the Missouri Risk Based Corrective Action (MRBCA) guidance document showed that the domestic use of groundwater exposure pathway is incomplete, and the contaminant concentrations in groundwater were below applicable risk based target levels (RBTLs). The site will continue to operate as a cable manufacturing business. The department determined that the site is safe for its intended use.

Gotham Apartments – St. Louis

The Gotham Apartments site is located at 5901 Delmar in Saint Louis. This property consists of a vacant lot. A phase I environmental site assessment (ESA) indicated that the site historically contained a gas station and auto repair facility and that existing underground storage tanks (USTs) were removed in 2004, prior to enrollment in the BVCP.

Phase I and II ESAs indicated excessive lead and polycyclic aromatic hydrocarbons (PAHs) in soil located in the former UST pit, and PCE was detected in site groundwater at levels exceeding the MRBCA default target levels (DTLs). The phase II ESA did not indicate the presence of contamination associated with the former USTs. Additional groundwater investigation failed to yield measurable groundwater at the site, so the previous PCE detection was determined not to be a risk. Contaminated soil was excavated from the former UST pit and confirmation sampling indicated that the levels of lead and PAHs remaining met the appropriate RBTLs. The department determined that the site is safe for its intended use. The site will be developed into a multi-story building with a mix of residential and retail/commercial use.

Braymer Rail Yard - Braymer

The Braymer Rail Yard site is located southeast of Harris Street and Petree Avenue in Braymer. This site is part of a larger area consisting of a rail corridor. The portion of the rail yard that was admitted to the BVCP is an elongated tract of land bounded by various properties including commercial, residential, vacant agricultural land and industrial facilities. In addition, various agricultural industries have been developed around the rail yard. Since 1918, various structures have been built and removed for the storage of water, oil, fertilizer, grain and livestock on or near the rail yard.

From 2010 to 2014, an environmental investigation was conducted at the rail yard to determine the presence and extent of contamination associated with the operation of a railroad yard. Soil samples were collected at multiple intervals within each boring and were analyzed for Resource Conservation and Recovery Act 8 metals, volatile organic compounds (VOCs), Total Petroleum hydrocarbons (TPHs)-Gasoline Range Organics (GRO), TPH-Diesel Range Organics (DRO), semi-volatile organic compounds (SVOCs), nitrogen and Ammonia. Organic parameters that were detected in the soil samples did not exceed the MRBCA DTLs. However, concentrations of arsenic, lead and ammonia were detected in concentrations above DTLs, but below background soil concentrations. Because the rail yard does not exceed background soil concentrations or residential use RBTs, the rail yard meets the requirements for unrestricted use. The department determined that the site is safe for its intended use.

Chesterfield Auto Repair (Former) - Chesterfield

The Chesterfield Auto Repair (Former) site is located at 18331, 18333 and 18335 Chesterfield Airport Road in Chesterfield. This 16-acre site is located in a mixed-use area of Chesterfield, has been developed since at least 1913, and is currently unoccupied. Its most recent occupant was an auto repair facility and prior uses include a service station and residences. Petroleum contamination was found in the soil and groundwater near a former fuel pump. Lead was found in the surficial soil behind the building in the area of an aboveground storage tank (AST) suspected to store used oil.

The original petroleum-contaminated soil was excavated and disposed during installation of a culvert at the property. Lead-impacted soil north of the building was excavated and disposed, and a used oil storage tank found under the service area was excavated and disposed. Confirmation soil samples showed no impact to the soil in the tank pit. The department determined that the site is safe for its intended use.

Canadian Pacific - Liberty Yard (Tract 1) - Liberty

The Canadian Pacific - Liberty Yard (Tract 1) - Liberty site is located at 421 Suddarth Street in Liberty. The Canadian Pacific Railroad corridor consists of one maintenance office structure that has historically been used as a passenger depot. The corridor is currently used for railroad maintenance operations. An office building, two main railroad lines, five interior spurs and one western spur are located within the site. The office building was built in the 1960s, replacing the original depot built in 1932.

Four soil borings and one groundwater monitoring well were placed in an area thought to have once contained USTs. No petroleum contamination was found. Minor amounts of arsenic, below background level, were found in the soil and minor amounts, below the residential target level, were found in the groundwater. The domestic use of groundwater pathway is incomplete for the site. The department determined that the site is safe for its intended use.

ONDR Packaging - St. Louis

The ONDR Packaging site is located at 5101 Farlin Street in St. Louis. This site has been developed since approximately 1943, and consists of a three-story building with a basement and boiler room, in addition to an outside loading dock and former outdoor transformer yard. Previous businesses included various manufacturing companies. The site is currently vacant.

Widespread polychlorinated biphenyl (PCB) contamination was confirmed, both inside the building and in the former transformer yard. Excessive metals contamination was present in on-site soils. ASTs in a subsurface vault contained phenols and cresols from former wire coating activities. The subsurface vault and a sump area in the basement were partially flooded with water and sediment, and likely contaminated with PCBs. Finally, asbestos and lead-based paint (LBP) were present inside the building, along with various drums of unknown materials.

Four 15,000 gallon ASTs, containing wastewater and residual solvents, were present in an underground vault north of the building. Several sumps filled with debris and water were observed in the building's basement. No other chemicals of concern were detected in soil or groundwater at levels that exceeded the MRBCA DTLs.

The four ASTs were removed and properly disposed; wastewater from the AST vault and basement sumps was properly disposed; and the vault and sumps were filled in place with gravel. The ACM and drums of unknown material were removed from the building. LBP and PCBs in the building were encapsulated. PCB-contaminated soils in the transformer yard were capped in-place with asphalt. A site management plan was approved by both the BVCP and the EPA to prevent exposure to the encapsulated LBP and PCBs. The department determined that the site is safe for its intended use. The site will be utilized as warehouse space.



New Brownfields/Voluntary Cleanup Section Chief

On September 22, 2014, Scott Huckstep was named as the new Chief of the Hazardous Waste Program's Brownfields/Voluntary Cleanup Section. Scott began his career with the department in 1997, and has worked in the Brownfields/Voluntary Cleanup Section as a project manager and unit chief since 1999. Scott earned a Bachelor of Science degree in Biological Sciences and a minor in Chemistry from Quincy (IL) University and a Master of Science degree in Fisheries and Wildlife Sciences from the University of Missouri-Columbia.

Sites in Brownfields/Voluntary Cleanup Program

| Month | Active | Completed | Total |
|----------------|--------|-----------|-------|
| July 2014 | 236 | 736 | 972 |
| August 2014 | 233 | 740 | 973 |
| September 2014 | 233 | 741 | 974 |

New Sites Received: 7

July

South Avenue Water Tower Site, Springfield
Express Valet Cleaners, St. Louis
Commerce Tower, Kansas City
ARTCO South Terminal, St. Louis

August

Valley Cleaners Shopping Center, Chesterfield

September

Century Foundry, St. Louis
TEPCCO Cape Girardeau -
Gravitometer Release, Scott City

Sites Closed: 6

July

Midcon Cables Co., Joplin

August

Gotham Apartments, St. Louis
Braymer Rail Yard, Braymer
Chesterfield Auto Repair (former), Chesterfield
Canadian Pacific - Liberty Yard - Tract 1, Liberty

September

ONDR Packaging, St. Louis

Drycleaning Environmental Response Trust Fund

The Department of Natural Resources' Drycleaning Environmental Response Trust (DERT) Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from drycleaning facilities. The two main sources of revenue for the fund are the drycleaning facility annual registration surcharge and the quarterly solvent surcharge.

Registrations

The registration surcharges are due by April 1 of each calendar year for solvent used during the previous calendar year. The solvent surcharges are due 30 days after each quarterly reporting period.

| Calendar Year 2014 | Active Drycleaning Facilities | Facilities Paid | Facilities in Compliance |
|-----------------------|-------------------------------|-----------------|--------------------------|
| January - March 2014 | 147 | 76 | 51.70% |
| April - June 2014 | 147 | 125 | 85.03% |
| July - September 2014 | 147 | 130 | 88.44% |

| Calendar Year 2014 | Active Solvent Suppliers | Suppliers Paid | Suppliers in Compliance |
|-----------------------|--------------------------|----------------|-------------------------|
| January - March 2014 | 11 | 11 | 100.00% |
| April - June 2014 | 11 | 11 | 100.00% |
| July - September 2014 | 11 | 7 | 63.64% |

Cleanup Oversight

| Calendar Year 2014 | Active Sites | Completed Sites | Total |
|-----------------------|--------------|-----------------|-------|
| January - March 2014 | 21 | 15 | 36 |
| April - June 2014 | 21 | 15 | 36 |
| July - September 2014 | 21 | 15 | 36 |

New Sites Received: 0

Sites Closed: 0

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Reimbursement Claims

The applicant may submit a reimbursement claim after all work approved in the work plan is complete and the DERT Fund project manager has reviewed and approved the final completion report for that work. The DERT Fund applicant is liable for the first \$25,000 of corrective action costs incurred.

| Month | Received | Under Review | Paid/Processed |
|-----------|----------|--------------|----------------|
| July | 0 | 3 | 1 |
| August | 0 | 1 | 0 |
| September | 2 | 1 | 1 |

| Month | Received | Under Review | Paid/Processed |
|-----------|-------------|--------------|----------------|
| July | \$0.00 | \$279,714.62 | \$79,947.30 |
| August | \$0.00 | \$18,748.27 | \$0.00 |
| September | \$26,585.80 | \$18,748.27 | \$18,304.27 |

Reimbursement Claims Processed

| Site Name | Location | Paid |
|--|-------------|-------------|
| Tri-State Service Company-East Trafficway Site | Springfield | \$79,947.30 |
| U.S. Cleaners (Lindbergh Blvd.) | St. Louis | \$18,304.27 |

Total reimbursements as of Sept. 30, 2014: \$2,665,906.80

DERT Fund Balance as of Sept. 30, 2014: \$403,065.03

Hazardous Waste Recycling: Fuel Burning in Missouri

As mentioned in a previous report article, 328,500 tons of hazardous waste was managed in Missouri during 2011. Reducing, reusing and recycling hazardous waste can protect your health and the environment, conserve our natural resources, provide economic benefits and reduce our reliance on raw materials and energy. Hazardous waste can be recycled in numerous ways, such as energy recovery, solvent recovery, metals recovery and fuel blending. This article is an in-depth look at energy recovery from hazardous waste derived fuels.

Missouri has five, above average-sized, cement manufacturing facilities: LaFarge (Sugar Creek); Continental Cement Co. (Hannibal); River Cement Co. (Festus); Buzzi Unicem USA (Cape Girardeau) and Holcim (US) Inc./ Geocycle LLC (Ste. Genevieve). These facilities use kilns, a long cylindrical brick-lined furnace, to produce clinker, which is ground and mixed with gypsum to make Portland cement. The manufacturing of cement is a very energy-intensive operation. Raw material, such as limestone, fireclay and shale, are crushed and ground in to a fine dust. Depending on the facility's process, the material is then either mixed with water or left in dry powder form, fed into the kiln and heated to the point to start the chemical reaction that makes clinker. The kiln needs to maintain an extreme temperature of $\geq 2500^{\circ}\text{F}$, the melting point of steel, for the chemical reaction to occur. A medium-sized rotary cement kiln can use over 300 million Btu per hour. That is enough energy to power more than eight homes for an entire year.



Cement Manufacturing Plant in Hannibal



This is an illustration showing the reach for hazardous waste derived fuel used by the two cement plants in Missouri: Continental Cement to the North; and Buzzi Unicem to the south.

How Do Cement Facilities Heat Their Kilns?

More than 60 percent of the cement industry uses coal exclusively to produce the massive amount of energy needed to heat their kilns. Coal is able to produce an average of 11,330 Btu per pound. This means one average-sized cement kiln, operating 24 hours per day and 365 days per year, would use 115,975 tons of coal per year. That is enough coal to fill 32 Olympic-sized swimming pools every year.

Two Missouri facilities, Buzzi Unicem and Continental Cement, reduced their dependence on coal by over 50 percent by supplementing their fuel needs with hazardous waste-derived fuels. Most hazardous wastes used for fuel are

liquids, such as “spent” solvents. These include drycleaning fluids and paint thinner, unused paints and inks, off-specification product, coal tar and refinery wastes. “Spent” means that the solvents have been cleaned and reused to the point they are no longer usable. The liquid hazardous wastes are blended with other compatible hazardous waste to achieve desired fuel characteristics such as Btu value and metals and chlorine content. Hazardous waste-derived fuels have heating values greater than 5,000 Btu.

For hazardous waste-derived fuel to replace coal, it must be able to offset the required heating value. The average Btu value of the blended hazardous waste-derived fuel used in these cement kilns is 10,500 Btu per pound. If coal produces an average of 11,330 Btu per pound, it takes about 1.08 pounds

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of hazardous waste-derived fuel to offset one pound of coal. This is a large amount of spent, hazardous material that must be received by these two facilities in order to offset 50 percent of their coal usage. In 2013, the two facilities recycled 176,875 tons of hazardous waste-derived fuel for energy: Buzzi Unicem recycled 103,026 tons and Continental Cement recycled 73,849 tons.

Why Burn Hazardous Waste as Fuel?

Conserves our Natural Resources: Coal is a fossil fuel, a natural fuel formed from the remains of dead plants and animals. Fossil fuels are a renewable resource, since they are continually being formed as plants and animals die, decompose and become trapped beneath sediment. However, fossil fuels are generally considered to be non-renewable resources because they take millions of years to form, and known viable reserves are being depleted much faster than new ones are being made. Using hazardous waste-derived fuel in place of coal saves the non-sustainable fossil fuel resources.

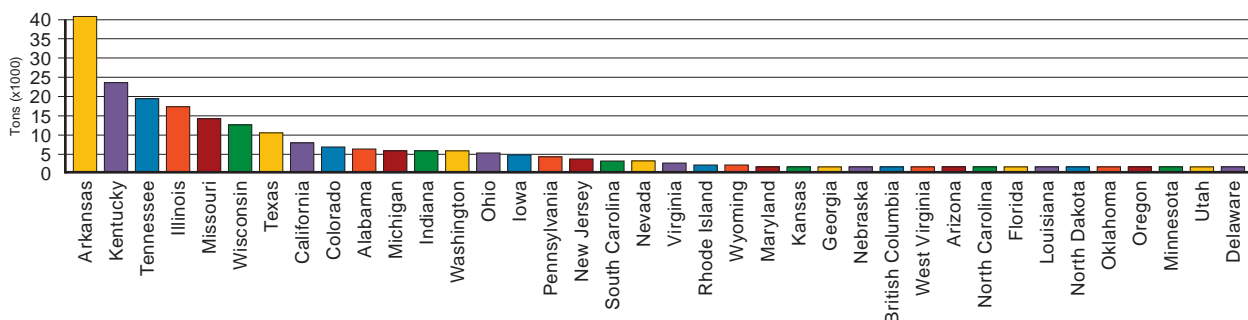
Reduces Greenhouse Gas: Burning coal adds a significant amount of carbon dioxide to the atmosphere, which is a greenhouse gas. Greenhouse gases warm the earth's surface and contribute to global warming. Carbon (C) is the main component of coal, and the principal source of its heating value. Carbon dioxide (CO₂) forms when one atom of carbon (C) unites with two atoms of oxygen (O) from the air during the coal burning process. One pound of carbon combines with 2.667 pounds of oxygen to produce 3.667 pounds of CO₂. Typical coal that produces 11,330 Btu per pound is made up of 78% carbon. This means one average-sized cement kiln, operating 24 hours per day and 365 days per year, would create 331,719 tons of CO₂ per year. This is why the cement production industry accounts for 5 percent of the world's contribution to the greenhouse gas CO₂.

Hazardous waste-derived fuels contain far less carbon than coal, with the average blended fuel containing between 45% and 59% carbon. With Buzzi Unicem and Continental Cement offsetting over 50 percent of their coal usage with hazardous waste derived fuel, the average CO₂ reduction per year is 131,143 tons of CO₂.

Protects our Environment: Using hazardous waste-derived fuel in place of coal reduces the pollution caused by coal mining. Besides being disruptive to the environment, mining requires large amounts of energy. Recycling hazardous waste typically requires less energy and reduces the potential for air, surface water, groundwater and soil pollution associated with removing and processing new raw materials.

Once waste is determined to be hazardous, it must be treated or disposed at a permitted facility. Burning is often the only practical means of disposing spent solvents. If not used as hazardous waste-derived fuel, solvents and other hazardous waste would be incinerated or treated to meet land disposal restrictions and landfilled or deep well injected. Missouri receives hazardous wastes to use as fuel from all over the nation.

This table shows the contributing states for the massive quantities of hazardous waste derived fuel utilized in Missouri.



Missouri cement kilns that burn hazardous waste-derived fuel must follow the requirements of the Missouri Hazardous Waste Management Law. The Missouri Department of Natural Resources inspects each kiln multiple times a year, reviewing all aspects of hazardous waste analysis, storage and handling, personnel training and emergency preparedness. The inspectors also review the facility's operating record to make sure hazardous waste is being burned safely.

Recycling hazardous waste can protect your health and the environment, conserve our natural resources, provide economic benefits and reduce our reliance on raw materials and energy. Using hazardous waste derived fuel for energy saves non-sustainable fossil fuels, offsets the amount of CO₂ released to our atmosphere, reduces the pollution caused by coal mining and harnesses the energy from wastes throughout the nation that would otherwise be incinerated or treated to meet land disposal restrictions and landfilled or deep well injected. As long as the hazardous wastes are stored and handled properly, burning hazardous waste as a fuel protects human health and the environment.

Regional Office Hazardous Waste Compliance Efforts

- Conducted 103 hazardous waste generator compliance inspections:
 - 16 at large quantity generators.
 - 54 at small quantity generators.
 - 25 at conditionally exempt small quantity generators.
 - One at E-waste recycling facilities.
 - One targeted re-inspection.
- Conducted six compliance assistance visits at hazardous waste generators.
- Issued 30 letters of warning and three notices of violation requiring actions to correct violations cited during the 103 inspections conducted.
- Received and investigated a total of ten citizen concerns regarding hazardous waste generators.

Underground Storage Tank (UST) Compliance and Technology Unit (CTU)

Regulation Changes: Work on regulation changes continues. To comply with the Environmental Protection Agency Energy Policy Act requirements for USTs, the department will require all new UST systems installed after July 1, 2017, to be double-walled with improved monitoring. Regulation proposals will also include Missouri-specific improvements, along with any “new” federal regulation changes. Staff continues with outreach efforts and participation in meetings with the regulated community to assure they have ample opportunity to provide input on the proposed regulations.

Tank Inspections: State Fiscal Year 2015 contracted inspections are now in full swing. And as we have seen in previous years, Missouri owners, operators and contractors continue to demonstrate their proactive compliance by being responsive to issues when found, demonstrating a willingness to be a partner in ensuring all Missouri USTs are in compliance. The department is maintaining compliance with the EPA requirement of inspecting all regulated facilities at least every three years. The department must also demonstrate that all facilities are either in compliance or are moving to gain compliance. This goal is much easier to accomplish when owners, operators, contractors and regulators all work together.

Financial Responsibility (FR): Efforts continue to resolve violations with facilities that did not maintain a FR mechanism to address releases, and to protect third parties. Because of these efforts by the UST CTU staff and the Attorney General’s Office, the compliance rate of facilities with a verified financial responsibility mechanism continues to remain around 99 percent.

Special Facilities Unit

Commercial Facility Inspectors: Special facilities inspectors conducted 12 inspections of commercial hazardous waste treatment/storage/disposal facilities (TSDs).

Polychlorinated Biphenyl (PCB) Inspector: The PCB inspector conducted 29 compliance inspections at various types of facilities throughout the state. The inspector’s reports are forwarded to the EPA Region 7, which has authority for taking any necessary enforcement action regarding PCBs according to the Toxic Substances Control Act.

Hazardous Waste Transporters: The inspector conducted 22 commercial vehicle inspections. One violation was cited and one commercial motor vehicle was put out of service.

As of Sept. 30, 2014, there were a total of 257 licensed hazardous waste, used oil and infectious waste transfer stations/truck terminals operated by hazardous waste transporters in Missouri.

Hazardous Waste Enforcement Unit

Enforcement Efforts

- Resolved five hazardous waste enforcement cases.
- Received 17 new enforcement cases.
- Sent one penalty negotiation offer letter.

Custom Carriage Auto Body

Custom Carriage Auto Body is an auto body repair facility located in Berkeley. The facility operated as a hazardous waste treatment, storage and disposal (TSD) facility without a permit or prior authorization by storing hazardous wastes onsite for more than 180 days. The facility failed to determine if waste is hazardous; use a licensed hazardous waste transporter; use authorized hazardous waste TSD or resource recovery facilities; or update their Notification of Hazardous Waste Activity. Additionally, they failed to keep drums closed in storage; mark hazardous waste containers with the beginning accumulation date; inspect and maintain the facility weekly; perform daily inspections of areas subject to spills; or maintain placards onsite for transporters. Further violations included failure to take precautions to prevent accidental ignition of ignitable or reactive wastes, including confining smoking and open flame to specially designated locations and conspicuously placing “No Smoking” signs by ignitable or reactive wastes. Other issues included failure to review operation and maintenance procedures to minimize the potential of an emergency or a release into the environment; train employees to ensure that they are familiar with waste handling and emergency procedures; have communication devices in the hazardous waste storage areas capable of summoning emergency assistance; make arrangements with local emergency agencies; characterize its waste to determine if wastes are restricted from land disposal; and maintain three years of manifests.

As a result of the department’s actions, the facility began properly identifying and managing their hazardous waste. The facility developed, implemented and keeps a record of a much more extensive training program in hazardous waste management for employees.

The penalty is \$26,400, of which \$13,200 is suspended contingent on the facility not committing any repeat or high priority violations for two years following the effective date of the settlement agreement. The remaining penalty of \$13,200 shall be paid in 18 monthly payments to the St. Louis City School Fund.

Fike Corporation

Fike Corporation is a fire suppression equipment manufacturing facility located in Blue Springs. The facility stored hazardous waste in satellite areas longer than one year and accumulated universal waste more than one year from the date it was generated or received from another facility. They also failed to update their notification of regulated waste activity; perform daily inspections of areas subject to spills, submit a contingency plan to local emergency agencies; or, obtain a valid resource recovery certification exemption for energy recovery or reclamation of hazardous waste. Further violations included a failure to demonstrate the length of time universal waste was accumulated from the date it became a waste or was received; store unbroken lamps in closed, non-leaking containers or packages that are structurally sound and adequate to prevent breakage; and ensure each lamp or lamp container or package was marked or labeled clearly as “Universal Waste Lamps” or “Waste Lamps” or “Used Lamps.”

As a result of the department’s actions, the facility began properly determining and managing their hazardous waste. The facility obtained a valid resource recovery certification exemption for energy recovery or reclamation of hazardous waste.

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The penalty is \$8,400, of which \$2,100 is suspended contingent on the facility not committing any repeat or high priority violations for two years following the effective date of the settlement agreement. The remaining penalty of \$6,300 was paid in one payment to the Jackson County School Fund.

U-Pick-It

U-Pick-It is a vehicle salvage yard located in Kansas City. The facility failed to ensure used oil was not disposed into the environment or causing a public nuisance. They also failed to notify the department or the solid waste district in which they operate of used oil collection activities.

As a result of enforcement actions, the used oil was cleaned up and properly disposed, and the company agreed to comply with the Missouri Hazardous Waste Management Law and Regulations.

The penalty is \$12,500, none of which is suspended and shall be paid to the Jackson County School Fund.

The actions taken by the companies above will result in protection of the environment and adjoining property and persons and safer working conditions for employees.

2014 Pesticide Collection Events

The Missouri Department of Natural Resources Hazardous Waste Program and Environmental Services Program staff oversaw four Pesticide Collection Program events for calendar year 2014. Perryville was the location of the first event in May. Washington, Marshfield and Shelbina were locations for the last three events taking place in July, August and September respectively. The purpose of the collection events is to provide a free opportunity for Missouri households and farmers to dispose of their waste pesticides and herbicides. The collection event is funded by monies resulting from a plea agreement between Walmart and the Department of Justice's (DOJ's) Environmental and Natural Resources Division entered into in May 2013 for violations of the Federal Insecticide, Fungicide and Rodenticide Act in Missouri. The department's Hazardous Waste Program received \$ 3,000,000 from the DOJ to use for pesticide related activities.

A total of 129 vehicles dropped off 21,513 pounds of waste pesticides as listed on the waste manifest. Below is a summary of the waste collected at the events, as listed on the hazardous waste manifests:

- 15,754 pounds of Flammable Toxic Pesticides (liquid)
- 4,091 pounds of Toxic Pesticides (solids)
- 1,032 pounds of Toxic Pesticides (liquid)
- 404 pounds of Non-regulated Pesticides (solid)
- 232 pounds of various waste pesticides including aerosols, oxidizers and flammable organic solids

During each event, staff surveyed the participants on where they heard about the program and where they had come from. The results of the survey will be used to determine the most effective ways to use our resources to distribute information prior to future events. The result of the surveys throughout all four events were:

- 54 - informed through a newspaper article or advertisement
- 50 - informed through flyer
- 12 - informed through internet/word of mouth
- 10 - informed through radio
- 3 - informed via Extension newsletter

The Missouri Pesticide Collection Program Plan consists of two major goals. The first is to organize, set up and conduct pesticide collection events. The second is to develop an information/education program regarding responsible use and disposal of pesticides. Recently, the department's Pesticide Collection Program Coordinator has joined the School Integrated Pest Management Work Group under the direction

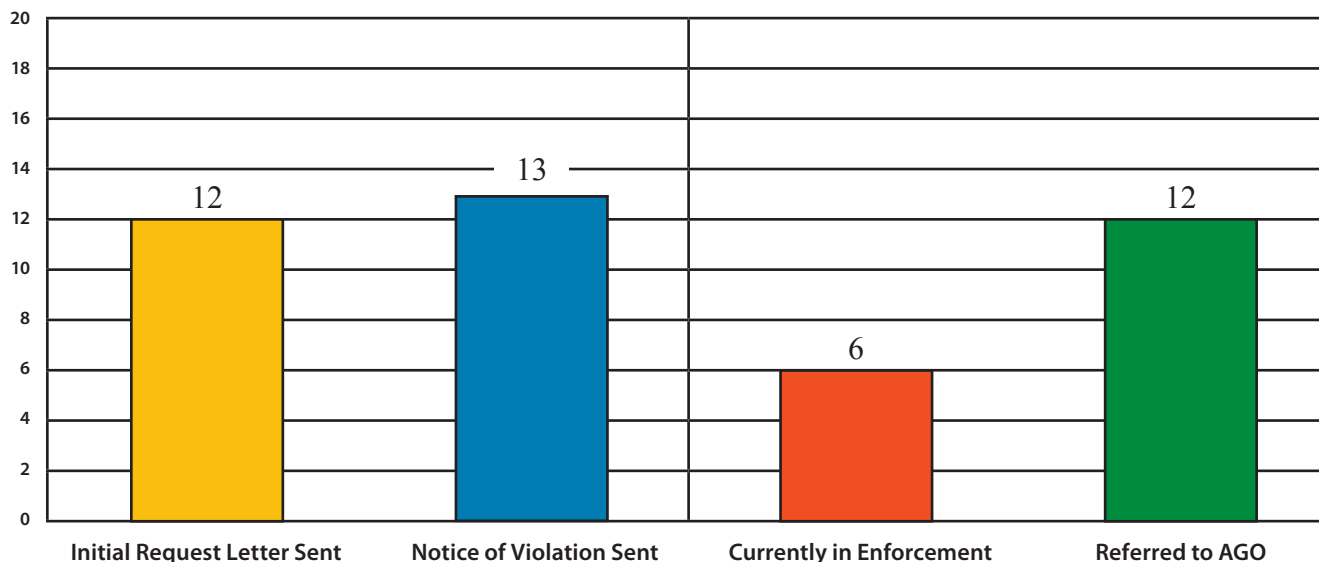
of the Missouri Department of Agriculture. Furthermore the Coordinator will be responsible for organizing and presenting material regarding safe disposal of pesticides during the 2015 Commercial Pesticide Applicator Training.

The Pesticide Collection Program is currently planning five pesticide collection events for calendar year 2015. One collection event will take place in every region of the state. An exclusive contract is being developed for the Pesticide Collection Program for all collection events held in 2015 and beyond.

Underground Storage Tank Facilities with Unknown Financial Responsibility Status Report

| Financial Responsibility Status | Number of Facilities |
|---|----------------------|
| Initial Request Letter Sent | 12 |
| Notice of Violation Sent | 13 |
| Currently in Enforcement | 6 |
| Referred to Attorney General's Office | 12 |
| Total Number of Facilities with Unknown Financial Responsibility | 43 |

Number of Facilities in Each Financial Responsibility Step



*This semi-monthly report is derived directly from a copy of the UST Database and provides a "snapshot" of the status for each active underground storage tank facility not covered by a proper Financial Responsibility Mechanism.

Overseeing the Remediation of a Petroleum Release

The Tanks Section's Risk-Based Corrective Action Unit is overseeing the remediation of a petroleum release located at 3853 Forest Park Avenue in St. Louis. This site operated as a fueling station and car wash from 1964 through February 2014. A total of six underground storage tanks (USTs) (5-10,000 gallon gasoline and 1-1,000 gallon waste oil) and two dispenser islands were removed from the property. The last tanks were removed in March 2014.

Sampling conducted after the removal of these tanks and dispensers revealed elevated levels of petroleum contamination in soil and groundwater. Therefore, extensive additional sampling was conducted at the site to determine the extent of the petroleum contamination.

The site is being redeveloped as an apartment complex. Prior to beginning construction, a corrective action plan was developed to manage the potential risk from the petroleum contamination remaining at the site. The corrective action plan, approved by the department in 2014, includes two parts. The first part of the plan includes installing a vapor barrier beneath the building to prevent vapors from contaminated soil and groundwater from entering the building. The second part of the plan places a restrictive covenant on the property deed ensuring the vapor barrier will be maintained and inspected in perpetuity.

The vapor barrier was installed between August and September of 2014. The apartment complex is expected to be complete by the end of 2015.



Aerial view (from Google Maps) of the Gas House Car Wash prior to site redevelopment.



Underground storage tanks being removed at the site.



Vapor barrier being installed on the footings of the apartment building.



KP Building

Former Kwik Pantry #1 806 North Benton | Springfield, MO

Kwik Pantry was an operating “mom & pop” style convenience store utilizing three 10,000-gallon, steel, gasoline underground storage tanks (USTs). The facility opened in 1978, and operated until June 2008. The facility was located within two blocks of Drury University, Central High School and Springfield City Hall.

The property was purchased by the neighboring property owner, CU Community Credit Union, for an expansion of their building and business. The department issued a no further action letter on Aug. 29, 2008.

In 2010, construction was completed on the new CU Community Credit Union Center City facility. According to the city building permit, the estimated cost of the expansion was \$1.3 million. According to the Springfield Business Journal, nearly 4,500 square feet was added to its existing 7,732-square-foot building, expanding the facility to the south. The lobby and drive-through teller lines were joined to create a better flow of traffic on site. A tower element was added to the new building, along with more parking and new signage.



Tank Removal



Construction



Final

Missouri Department of Natural Resources - Hazardous Waste Program

TANKS

Petroleum Storage
Tanks Regulation
June 2015

| Staff Productivity | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | TOTAL |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Documents received for review | 162 | 188 | 212 | | | | | | | | | | 562 |
| Remediation documents processed | 140 | 121 | 141 | | | | | | | | | | 402 |
| Closure reports processed | 8 | 10 | 13 | | | | | | | | | | 31 |
| Closure notices approved | 9 | 9 | 10 | | | | | | | | | | 28 |
| Tank installation notices received | 7 | 5 | 5 | | | | | | | | | | 17 |
| New site registrations | 3 | 5 | 1 | | | | | | | | | | 9 |
| Facility Data | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | TOTAL |
| Total in use, out of use and closed USTs | 40,756 | 40,773 | 40,789 | | | | | | | | | | |
| Total permanently closed USTs | 31,676 | 31,703 | 31,777 | | | | | | | | | | |
| In use and out of use USTs | 9,080 | 9,070 | 9,012 | | | | | | | | | | |
| Out of use USTs | 739 | 746 | 709 | | | | | | | | | | |
| Total hazardous substance USTs | 404 | 404 | 404 | | | | | | | | | | |
| Facilities with in use and out of use USTs | 3,483 | 3,482 | 3,461 | | | | | | | | | | |
| Facilities with one or more tank in use | 3,229 | 3,226 | 3,220 | | | | | | | | | | |

Closures

| Underground Storage Tanks | Jul-14 | Aug-14 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | TOTAL | All Yrs |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|
| Closure Reports Reviewed | 8 | 10 | 13 | | | | | | | | | | 31 | |
| Closure Notices Approved | 9 | 9 | 10 | | | | | | | | | | 28 | |
| Number of Tanks Closed (Closure NFA) | 14 | 17 | 34 | | | | | | | | | | 65 | |

Cleanup

| Underground Storage Tanks | | | | | | | | | | | | | TOTAL | All Yrs |
|-------------------------------------|-----|-----|-----|--|--|--|--|--|--|--|--|--|-------|---------|
| UST release files opened this month | 4 | 7 | 10 | | | | | | | | | | 21 | 6,624 |
| UST cleanups completed this month | 8 | 6 | 15 | | | | | | | | | | 29 | 5,759 |
| Ongoing UST cleanups | 865 | 866 | 863 | | | | | | | | | | | |
| Aboveground Storage Tanks | | | | | | | | | | | | | | |
| AST release files opened this month | 2 | 0 | 0 | | | | | | | | | | 2 | 469 |
| AST cleanups completed this month | 2 | 1 | 0 | | | | | | | | | | 3 | 289 |
| Ongoing AST cleanups | 182 | 181 | 180 | | | | | | | | | | | |
| Both UST and AST | | | | | | | | | | | | | | |
| Total release files-both UST & AST | 0 | 0 | 0 | | | | | | | | | | 0 | 78 |
| Cleanups completed-both UST & AST | 0 | 0 | 0 | | | | | | | | | | 0 | 49 |
| Ongoing cleanups-both UST & AST | 29 | 29 | 29 | | | | | | | | | | | |
| Unknown Source | | | | | | | | | | | | | | |
| Total release files-unknown source | 0 | 1 | 0 | | | | | | | | | | 1 | 227 |
| Cleanups completed-unknown source | 0 | 0 | 1 | | | | | | | | | | 1 | 183 |
| Ongoing cleanups-unknown source | 20 | 21 | 19 | | | | | | | | | | | |
| Documents Processed | 140 | 121 | 141 | | | | | | | | | | 402 | |
| *Reopened Remediation Cases | 0 | 0 | 0 | | | | | | | | | | 0 | 78 |

* Reopened Remediation Cases was added Nov. 18, 2009 - the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

Effective December 2008 tanks with unknown substance will be included in total figures. Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.